WHAT IS CLAIMED IS:

1. A color photothermographic element comprising a support, and over the support, at least one imaging layer comprising a hydrophilic colloid binder and a light-sensitive silver-halide emulsion, wherein the average surface area per silver halide grain is less than about 1 square micron, and wherein the emulsion is sensitized with an effective amount less than about 40,000 atoms of sulfur and with an effective amount less than about 6,000 atoms of gold per square micron of grain surface area.

2. The color photothermographic element of claim 1 wherein the silver-halide emulsion comprises grains of silver halide selected from the group consisting of silver iodobromide, silver bromide, silver chloride, silver chlorobromide, silver chloroiodobromide, and combinations thereof.

3. The color photothermographic element of claim 1 wherein the silver-halide emulsion comprises silver iodobromide grains.

4. The color photothermographic element of claim 1 wherein the silver-halide emulsion comprises silver halide grains at least 50% of the projected area of which is provided by silver-halide grains that are bounded primarily by (111) crystallographic planes.

5. The color photothermographic element of claim 1 wherein the silver-halide emulsion comprises silver-halide grains at least 50% of the projected area of which is provided by tabular grains with an aspect ratio of at least 2.

6. The color photothermographic element of claim 1 wherein the silver-halide emulsion is spectrally sensitized.

7. The color photothermographic element of claim 5 wherein the silver-halide emulsion comprises silver-halide grains at least 50% of grain

projected area of which is provided by silver halide having a grain thickness greater than 0.06 microns.

8. The color photothermographic element of claim 1 wherein silver as silver halide relative to total silver, including both silver halide and organic silver donor, is present in said emulsion in an amount from 30 to 85% by weight.

9. The color photothermographic element of claim 1 wherein the imaging layer comprises, in addition to the light-sensitive silver-halide emulsion, a blocked developer, a thermal solvent, an image-dye-forming coupler, and a non-light-sensitive organic silver donor.

10. A method of processing a photothermographic element for accurately recording a scene as an image which element comprises a support and, coated on the support, a plurality of hydrophilic colloid layers comprising radiation sensitive silver-halide emulsion layers forming recording layer units for separately recording exposures in three different regions of the spectrum wherein at least one imaging layer comprises a hydrophilic colloid binder and a light-sensitive silver-halide emulsion, wherein the average surface area per silver halide grain is less than about 1 square micron, and wherein the emulsion is sensitized with an effective amount less than about 40,000 atoms of sulfur and with an effective amount less than about 6,000 atoms of gold per square micron of grain surface area, said method comprising thermally developing an imagewise exposed element and then scanning the element to form an electronic image representation of said imagewise exposure.

11. The method according to claim 10 further comprising the step of digitizing a first electronic image representation formed from the imagewise exposed, developed, and scanned photothermographic element to form a digital image.

12. The method according to claim 10 further comprising the step of modifying a first electronic image representation formed from the imagewise exposed, developed, and scanned photothermographic element to form a second electronic image representation.

13. The method according to claim 10 further comprising storing, transmitting, printing, or displaying an electronic image representation of an image derived from the imagewise exposed, developed, scanned photothermographic element.

14. The method according to claim 13, wherein said electronic image representation is a digital image.

15. The method according to claim 13, wherein printing the image is accomplished by electrophotography; inkjet; thermal dye sublimation; or by laser, LED or CRT printing to sensitized photographic paper.

16. The method according to claim 10 wherein the developing is accomplished in a dry state without the application of aqueous solutions.

17. A color photothermographic film comprising a support, and over the support, at least three light-sensitive layer units which have their individual sensitivities in different wavelength regions, at least one of the units being divided into at least two recording layer sub-units for increased exposure latitude, wherein each of the two layer sub-units comprise a light-sensitive silver-halide emulsion and binder;

wherein the silver-halide emulsion in one of the two recording layer sub-units has a relatively lower speed than the silver-halide emulsion in the other of the two recording layer subunits; and

wherein, in the lower-speed silver-halide emulsion, the average surface area per silver halide grain is less than about 1 square micron, and the emulsion is sensitized with an effective amount less than about 40,000 atoms of sulfur and

with an effective amount less than about 6,000 atoms of gold per square micron of grain surface area.

18. The color photothermographic film of claim 17 wherein, in the relatively higher speed silver-halide emulsion, the average surface area per silver halide grain is greater than in the relatively lower speed silver-halide emulsion, and the emulsion is sensitized with an effective amount of sulfur and with an effective amount of gold, per square micron of grain surface area, that is greater than in the relatively lower speed silver-halide emulsion.

19. The color photothermographic film of claim 17 wherein, in the relatively higher speed silver-halide emulsion, the average surface area per silver halide grain is substantially greater than in the relatively lower speed silver-halide emulsion, and the emulsion is sensitized with an effective amount of sulfur and with an effective amount of gold, per square micron of grain surface area, that is at substantially greater than in the relatively lower speed layer sub-unit.

20. The color photothermographic film of claim 18 wherein, in the relatively higher speed silver-halide emulsion, the average surface area per silver halide grain is greater than about 1 square micron, and the emulsion is sensitized with an effective amount greater than about 40,000 atoms of sulfur and with an effective amount greater than about 6,000 atoms of gold per square micron of grain surface area.